CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer,
Kodigehalli Sub Division,
BBMP.

24th September 2016

Dear Sir,

Sub: Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Testing of cubes – Reg.

As requested the 07th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

AE.B

Please find the enclosed Test Reports of the above.

Thanking you,

For Civil Tech Labs,

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

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Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of Agency	Sri. C. Narasaraju
Grade of Concrete	M-20
Location	Drain
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-1	150.06 X 150.07 X 150.0	22520	16/09/2016	23/09/2016	7	8.22	338	**15.02**	**14.84**
2		150.05 X 150.04 X 150.0	22514				8.21	334	**14.84**	
3		150.03 X 150.05 X 150.0	22512				8.19	330	**14.67**	

Note:

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Quality Manager

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of Agency	Sri. C. Narasaraju
Grade of Concrete	M-20
Location	Drain
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-2	150.05 X 150.04 X 150.0	22514	16/09/2016	23/09/2016	7	8.20	352	**15.64**	**15.56**
2		150.06 X 150.07 X 150.0	22520				8.21	350	**15.56**	
3		150.07 X 150.05 X 150.0	22518				8.19	348	**15.47**	

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of Agency	Sri. C. Narasaraju
Grade of Concrete	M-20
Location	Drain
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-3	150.06 X 150.04 X 150.0	22515	16/09/2016	23/09/2016	7	8.19	330	**14.67**	**14.87**
2		150.07 X 150.05 X 150.0	22518				8.20	338	**15.02**	
3		150.05 X 150.04 X 150.0	22514				8.21	336	**14.93**	

AE-B 1

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of Agency	Sri. C. Narasaraju
Grade of Concrete	M-20
Location	Covering Slab
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	CC Work	150.09 X 150.07 X 150.0	22524	17/09/2016	24/09/2016	7	8.20	344	**15.29**	**15.20**
2		150.06 X 150.05 X 150.0	22517				8.21	342	**15.20**	
3		150.07 X 150.06 X 150.0	22520				8.19	340	**15.11**	

AE 1

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Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer,
Kodigehalli Sub Division,
BBMP.

09th September 2016

Dear Sir,

Sub: Testing of Materials.

As requested, tests on physical properties were carried out for the Materials supplied by you, for the work of **'Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.'**

Please find the enclosed Test Reports of the above.

AE-B

Thanking You,
For Civil Tech Labs

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

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TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of the Agency	Sri. C. Narasaraju
Date of Testing	09/09/2016

Tests	Test Method As Per IS & Apparatus		Results		Requirements As Per IS 8112:1989	Remarks
	IS Code	Method	Value	Unit		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	49	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	489	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	4	mm	Not More Than 10 mm	Satisfies Requirement

AE-8

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(KHUSHBOO L.)
Quality Manager

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TEST REPORT

GRADATION TEST ON FINE AGGREGATES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of Agency	Sri. C. Narasaraju
Date of Testing	09/09/2016
Specific Gravity	**2.56**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011), IS : 2386 (Part III)–1963 (Reaffirmed 2011)

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)				Grading Zone	Remarks
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV		
River Sand	10	**100**	100	100	100	100	II	Satisfies the requirement
	4.75	**98.2**	90-100	90-100	90-100	95-100		
	2.36	**87.1**	60-95	75-100	85-100	95-100		
	1.18	**77.3**	30-70	55-90	75-100	90-100		
	0.6	**48.3**	15-34	35-59	60-79	80-100		
	0.3	**25.1**	5-20	8-30	12-40	15-50		
	0.15	**7.9**	0-10	0-10	0-10	0-15		

AE-8

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CIVIL TECH LABS BANGALORE (KS)

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Quality Manager

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 40mm ↓ Graded

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of Agency	Sri. C. Narasaraju
Date of Testing	09/09/2016
Specific Gravity	**2.66**
Water Absorption	**0.28%**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011), IS : 2386 (Part III)–1963 (Reaffirmed 2011)

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS:383-1970 (Reaffirmed 2011)**	**Remarks**
80	**100**	100	**Satisfies the requirement**
40	**99.1**	95-100	
20	**56.2**	30-70	
10	**27.3**	10-35	
4.75	**3.3**	0-5	

AE-B

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(KHUSHBOO L.)
Quality Manager

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TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 16 mm

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of the Agency	Sri. C. Narasaraju
Date of testing	09/09/2016
Grade of Steel	Fe - 500.

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	16	16	Satisfactory
2	Wt/m Length (Kg/m)	1.59	1.58	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	15.1	12	Satisfactory
5	Yield Stress(N/Sq.mm)	520	500	Satisfactory
6	U T S (N/Sq.mm)	578	545	Satisfactory

AE-8

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4. The results are based on the test conducted on samples supplied by the client.

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TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 12 mm

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of the Agency	Sri. C. Narasaraju
Date of Testing	09/09/2016
Grade of Steel	Fe - 500.

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	12	12	Satisfactory
2	Wt/m Length (Kg/m)	0.889	0.888	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	14.9	12	Satisfactory
5	Yield Stress(N/Sq.mm)	511	500	Satisfactory
6	U T S (N/Sq.mm)	568	545	Satisfactory

AE-B

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TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 10mm

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements of side drains and drains in ward no. 08 at Kodigehalli sub division.
Name of the Agency	Sri. C. Narasaraju
Date of Testing	09/09/2016
Grade of Steel	Fe - 500.

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	10	10	Satisfactory
2	Wt/m Length (Kg/m)	0.618	0.617	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	14.1	12	Satisfactory
5	Yield Stress(N/Sq.mm)	509	500	Satisfactory
6	U T S (N/Sq.mm)	566	545	Satisfactory

AE-B

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